

5 sterilization tunnel;
6 a plurality of sterilant concentration zones within the
7 sterilization tunnel;
8 at least one gas supply source to supply the
9 pressurized gas into the sterilization tunnel; and
10 at least one gas exit to allow the pressurized gas to
11 escape the sterilization tunnel.

1 4. (Original) The apparatus of claim 3, further including at
2 least one partition forming sterilant concentration zones.

1 5. (Original) The apparatus of claim 4, wherein each partition
2 comprises at least one opening for allowing objects to pass
3 through each partition.

1 6. (Original) The apparatus of claim 3, wherein the gas is
2 sterile air.

1 7. (Original) The apparatus of claim 3, wherein the sterilant is
2 hydrogen peroxide.

1 8. (Original) The apparatus of claim 3, further including a
2 product filler and a lidding apparatus opening into a sterile
3 zone of the sterilization tunnel.

1 9. (Original) The apparatus of claim 8, wherein the
2 concentration of the sterilant hydrogen peroxide is less than .5
3 ppm in the sterile zone.

1 10. (Original) The apparatus of claim 3, further including an
2 interior bottle sterilization apparatus opening into a sterile
3 zone of the sterilization tunnel.

1 11. (Original) The apparatus of claim 10, wherein the
2 concentration of the sterilant hydrogen peroxide is about 1000
3 ppm in the sterile zone.

1 12. (Original) The apparatus of claim 3, further including an
2 activation and drying apparatus opening into the sterilization
3 tunnel.

1 13. (Original) The apparatus of claim 12, wherein the
2 concentration of the sterilant hydrogen peroxide is about 3 ppm.

1 14. (Original) The apparatus of claim 3, further including a
2 bottle discharge apparatus opening into the sterilization tunnel.

1 15. (Original) The apparatus of claim 14, wherein the

2 concentration of the sterilant hydrogen peroxide is about .1 ppm.

1 16. (Original) The apparatus of claim 3, wherein the containers
2 are bottles.

1 17. (Amended) Apparatus comprising:

2 a sterilization tunnel for surrounding a plurality of
3 containers with pressurized gas;

4 a sterilant supply source to supply sterilant into the
5 sterilization tunnel;

6 a plurality of zones having varying gas flow within the
A' 7 sterilization tunnel;

8 a plurality of sterilant concentration zones within the
9 sterilization tunnel;

10 at least one gas supply source to supply the
11 pressurized gas into the sterilization tunnel; and

12 at least one gas exit to allow the pressurized gas to
13 escape the sterilization tunnel.

1 18. (Original) The apparatus of claim 17, further including at
2 least one partition forming gas flow zones.

1 19. (Original) The apparatus of claim 18, wherein each partition
2 comprises openings for allowing objects to pass through each

3 partition.

1 20. (Original) The apparatus of claim 17, wherein the pressurized
2 gas is sterile air.

1 21. (Original) The apparatus of claim 17, wherein the sterilant
2 is hydrogen peroxide.

3 22. (Original) The apparatus of claim 17, further including an
4 activation and drying apparatus opening into a first of said gas
5 flow zones.

1 23. (Original) The apparatus of claim 22, wherein sterile air
2 enters the first gas flow zone at a rate of about 2400 cfm.

A2 *Sub 65*
1 24. (Amended) The apparatus of claim 23, wherein sterile air
2 exits the first gas flow zone at a rate of about 1500 cfm.

3 25. (Original) The apparatus of claim 23, wherein sterile air
4 exits the first gas flow zone at a rate of about 1500 cfm.

1 25. (Original) The apparatus of claim 17, further including a
2 product filler and a lidding apparatus opening into a second of
3 said gas flow zones of the sterilization apparatus.

1 26. (Original) The apparatus of claim 25, wherein sterile air
2 enters the second gas flow zone at a rate of about 1000 cfm.

1 27. (Original) The apparatus of claim 17, further including a
2 bottle discharge apparatus opening into a third of said gas flow
3 zones of the sterilization tunnel.

1 28. (Original) The apparatus of claim 27, wherein sterile air
2 exits the third gas flow zone at a rate of about 100 cfm.

1 29. (Original) The apparatus of claim 17, further including a
2 bottle infeed and sterilization apparatus with an opening into a
3 fourth gas flow zone of the sterilization tunnel.

1 30. (Original) The apparatus of claim 29, wherein sterile air
2 enters the infeed and sterilization apparatus at a rate of about
3 1800 cfm.

1 31. (Original) The apparatus of claim 29, wherein sterile air
2 from the infeed and sterilization apparatus together with the
3 fourth gas flow zone exits the infeed and sterilization apparatus
4 at a rate of about 3600 cfm.

1 32. (Original) The apparatus of claim 17, wherein the containers

2 are bottles.

1 33. (Original) A method comprising:

2 providing a sterilization tunnel for surrounding a
3 plurality of containers with pressurized gas;

4 introducing sterilant from a sterilant supply source
5 into the sterilization tunnel;

6 providing a plurality of sterilant concentration zones
7 within the sterilization tunnel;

8 introducing pressurized gas from at least one gas
9 supply source into the sterilization tunnel; and

10 allowing the pressurized gas to escape the
11 sterilization tunnel.

1 34. (Original) The method of claim 33, wherein the step of
2 providing a plurality of sterilant concentration zones further
3 includes the step of providing at least one partition for forming
4 said sterilant concentration zones.

1 35. (Original) The method of claim 34, further comprising
2 allowing objects to pass through each partition.

1 36. (Original) The method of claim 33, wherein the step of
2 introducing gas further comprises introducing sterile air.

1 37. (Original) The method of claim 33, wherein the sterilant is
2 hydrogen peroxide.

1 38. (Original) Apparatus comprising:

2 means for providing a plurality of containers in a
3 sterilization tunnel;

4 means for providing a plurality of sterilant
5 concentration zones within the sterilization tunnel; and

6 means for providing a plurality of gas flow rates
7 within the sterilization tunnel.

REMARKS

Claims 1-38 remain pending. Claims 17 and 25 are amended.

Claims 1-38 are rejected under 35 U.S.C. 103(a) as being obvious over Kelbrick et al. in view of Muys et al. Applicant respectfully traverses the rejection as follows.

The Examiner contends that "Kelbrick et al intrinsically discloses a similar devise to sterilize containers using multiple numbers of nozzle sprayed with hydrogen peroxide at different levels of concentration..." ² Kelbrick et al. fails to teach or suggest, inter alia, "...a plurality of zones within a sterilization tunnel having different sterilant concentration levels," as recited in claim 1. Kelbrick et al. fails to teach or suggest, inter alia, "...a plurality of sterilant